



Revista Brasileira de Enfermagem

ISSN: 0034-7167

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Associação Brasileira de Enfermagem  
Brasil

Bacha, Angela Maria; da Rocha Grassiotto, Oswaldo; Pollini Gonçalves, Simone; Higa, Rosângela; Fonsechi-Carvasan, Gislaine Aparecida; da Costa Machado, Helymar; Barbosa Cacique, Denis

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Revista Brasileira de Enfermagem, vol. 68, núm. 6, noviembre-diciembre, 2015, pp. 819-826

Associação Brasileira de Enfermagem  
Brasília, Brasil

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## Job satisfaction of nursing staff in a university hospital

*Satisfação no trabalho da equipe de enfermagem em um hospital universitário*

*Satisfacción en el trabajo del personal de enfermería en un hospital universitario*

Angela Maria Bacha<sup>1</sup>, Oswaldo da Rocha Grassiotto<sup>1</sup>, Simone Pollini Gonçalves<sup>2</sup>, Rosângela Higa<sup>2</sup>,  
Gislaine Aparecida Fonsechi-Carvasan<sup>2</sup>, Helymar da Costa Machado<sup>2</sup>, Denis Barbosa Cacique<sup>2</sup>

<sup>1</sup> Universidade Estadual de Campinas, Faculty of Medical Sciences. Campinas, São Paulo, Brazil.

<sup>2</sup> Universidade Estadual de Campinas, Hospital da Mulher Professor Doutor José Aristodemo Pinotti, Integral Care Center for Women's Health. Campinas, São Paulo, Brazil.

### How to cite this article:

Bacha AM, Grassiotto OR, Gonçalves SP, Higa R, Fonsechi-Carvasan GA, Machado HC, Cacique DB. Job satisfaction of nursing staff in a university hospital. Rev Bras Enferm. 2015;68(6):819-26.  
DOI: <http://dx.doi.org/10.1590/0034-7167.2015680619i>

Submission: 11-07-2014 Approval: 07-18-2015

### ABSTRACT

**Objective:** identify the determinants of job satisfaction of the nursing staff of a public university hospital. **Method:** secondary study with mixed data approach and simple and multiple linear regression. A total of 115 subjects participated in the study, 41 nurses and 74 nursing assistants and technicians. The data collection occurred in 2013 using the QST-Caism questionnaire. **Results:** education, hierarchical level and workplace constitute job satisfaction determinants. However, age, gender, job and work period did not show this relationship. More educated workers held low job satisfaction if exercised not graduated nursing functions. **Conclusion:** graduated workers who perform high school functions are more unsatisfied than those who have high school function and qualification.

**Key words:** Job Satisfaction; Nursing Staff, Hospital; Working Conditions.

### RESUMO

**Objetivo:** identificar os determinantes da satisfação no trabalho da equipe de enfermagem de um hospital público universitário. **Método:** estudo secundário, com abordagem mista dos dados e análise de regressão linear simples e múltipla. Participaram da pesquisa 115 sujeitos, sendo 41 enfermeiros e 74 técnicos e auxiliares de enfermagem. A coleta de dados ocorreu em 2013, mediante a aplicação do questionário QST-Caism. **Resultados:** escolaridade, cargo e local de trabalho constituem determinantes da satisfação. Já idade, sexo, função e período de trabalho não apresentaram essa relação. Trabalhadores mais escolarizados detinham baixa satisfação no trabalho se exercessem funções de técnico e de auxiliares de enfermagem. **Conclusão:** trabalhadores graduados desempenhando funções de ensino médio estão mais insatisfeitos do que aqueles com função e formação de ensino médio.

**Descritores:** Satisfação no Trabalho; Recursos Humanos de Enfermagem no Hospital; Condições de Trabalho.

### RESUMEN

**Objetivo:** identificar los determinantes de la satisfacción laboral del personal de enfermería de un hospital público y universitario. **Método:** estudio secundario, con enfoque mixto y análisis de regresión lineal simple y múltiple. Participaron 115 sujetos, incluyendo 74 enfermeras y 41 técnicos y auxiliares de enfermería. La recolección ocurrió en 2013 por el QST-Caism. **Resultados:** nivel de educación, cargo y lugar de trabajo son determinantes de la satisfacción. Por su parte, período de trabajo, edad, sexo y función no muestran esta relación. Trabajadores más instruidos tenían baja satisfacción cuando sus funciones eran asistentes o técnicos de enfermería. **Conclusión:** trabajadores graduados desempeñando funciones de escuela secundaria son más insatisfechos que trabajadores con función y calificación de escuela secundaria.

**Palabras clave:** Satisfacción en el Trabajo; Personal de Enfermería en Hospital; Condiciones de Trabajo.

CORRESPONDING AUTHOR

Denis Barbosa Cacique

E-mail: [denisbarbosa.c@gmail.com](mailto:denisbarbosa.c@gmail.com)

## INTRODUCTION

Nursing human resources represent the largest contingent among work forces dedicated to health care<sup>(1)</sup>. Acting on medical care ambulatories, nursing wards and several other sections, those professionals are present in virtually all health institutions in which they assume various roles and positions and with a continuous participation during all year. In such areas, nursing care is responsible for the comfort, care and well-being of patients, providing services, coordinating departments to provide assistance and promoting autonomy to patients through health education<sup>(2)</sup>.

Considering the importance of this group on assistance provided and its great proportion regarding other health professionals, it is vital that nursing care members feel satisfied concerning their performed work<sup>(3)</sup>. The worker's general satisfaction exerts a direct influence on quality care<sup>(4)</sup> while work dissatisfaction is related to deliberated rotation of employees, constant demotivation for the team and a decrease of safety and satisfaction of patients<sup>(5)</sup>. In this context, to investigate the work satisfaction (WS) of the nursing team may contribute to identify problems on health services, planning of possible solutions and consequently the improvement on work space and service quality<sup>(6)</sup>.

On the national scenario, several studies have been investigating WS among nurses, technicians and nursing auxiliaries. However, few of them have described the satisfaction levels according to institutional and personal factors, such as education, position and working place. Among the exceptions, a research carried out with nurses working in a private hospital verified that men and women presented different WSs, with higher scores for the second group<sup>(7)</sup>. Other studies presented results for nursing professionals working specifically in Intensive Care Units, without, however, comparing with other working places<sup>(8-9)</sup>.

Thus, it is observed that evidences about specific factors of WS are rare for nursing professionals on national scenario. Such condition limits the actions that could be taken to improve WS in this category, consequently benefiting the quality of the care offered.

## OBJECTIVE

To identify the WS factors of a nursing team at a university public hospital, including personal and institutional features.

## METHOD

The study was performed on *Hospital da Mulher Professor Doutor José Aristodemo Pinotti-Caism/Unicamp* (Womens' Hospital Professor Doctor José Aristodemo Pinotti-Caism/University of Campinas), a hospital both public and from the university that fully attends the Brazilian Unified Health System (SUS). Located on the city of Campinas, countryside of São Paulo's state, Caism is a tertiary and quaternary level hospital, specialized on women and newborn health. Its influence area includes more than 100 cities, which corresponds to approximately five million people. The hospital has 139 beds and 1,157 employees, of which 484 are nursing professionals (131 nurses, 343 technicians and 10 auxiliaries).

Secondary analysis of data previously collected for validation of the QSR-Caism survey, which has 19 questions distributed on

the topics "Interpersonal Relationship", "Personal Achievement" and "Work Conditions", as well as a space to register comments from participants, was performed<sup>(10)</sup>. As for data treatment, this study employed a mixed method, with simultaneous collection, priority of the quantitative approach and incrustated design<sup>(11)</sup>. The individuals whose statements are reproduced on this study are named using acronyms, in accordance with the following code: "NUR" for nurse and "TEC" for nursing technician. Considering that auxiliaries constitute a small proportion (only 2.1%) of the full office force on nursing care in this hospital, for this study they were placed together with nursing technicians in all analyses.

The survey was answered on the Internet through the software Lime Survey version 1.91. Participants without Internet access answered the instrument on a printed version. Both of them required the previous signature of the Free and Informed Consent Form, in accordance with the project approved by the Committee of Ethical Research from the University of Campinas (Report 306.348 from June 6, 2013) and the Research Commission of Caism. The recruitment was made by one of the researchers who visited all the hospital wings inviting professionals to participate, and providing for them the survey's site or printed version.

Regarding the sample, the QST-Caism validation study included 328 subjects, of which were considered eligible to participate only the ones who work as nurses, nurse technicians or nurse auxiliaries. From the initial 328 subjects, 119 (36.3%) fitted the aforementioned criteria and were included on this study. Four of them did not answer at least 70% of the specific questions about WS, so they were excluded. Therefore, the final sample of this study had 115 subjects configuring a non-random sample, selected by convenience.

All statistic tests were made by the software SAS version 9.2, adopting the level of significance of 5%, i.e.  $P < 0.05$ . The QST-Caism scores were submitted to Shapiro-Wilk test, and it was verified that that distribution was not normal. For the comparative scores analysis between the categorical variables, Mann-Whitney test was used for variables with two groups, and Kruskal-Wallis test was used for variables of three or more categories. The study of the determinant factors of WS was performed through a simple and multiple linear regression analysis, with Stepwise criteria, verifying that one or more independent variables are more significant as fulfillment score factors. For this, and considering the absence of normal distribution, the scores became ranks. The independent variables used in all regression models were: age, gender, educational level, position, job title, period and place of work. The dependent variables for each model were the general score of fulfillment and the three domains of QST-Caism, presented in a scale of 0 to 100, in such manner that the highest the score, the higher the satisfaction. The data of the characteristics without a statically significant relation with the WS scores were not presented.

## RESULTS

Formed by 115 subjects, the sample was predominantly feminine (90.4% women and 9.6% men). Average age was 43.4 years old ( $SD = 9.2$ ) and employment relationship with the hospital was of 15.5 years ( $SD = 8.8$ ). Almost half of the participants had conclude high school, 41.2% were graduated and 11.4%

post-graduated. Most of the subjects worked on technical or auxiliary nursing jobs (64.3%), while the other ones were nurses (35.7%). Regarding working hours, 34.8% acted on an eight hours period during daytime, and 34.4% at night. From the total of subjects, 10.5% had positions such as supervisors, directors or technical assistant director. Regarding work places, 39.5% of the sample was allocated in nursing wards, 29% in ambulatories, 14.9% in operating rooms and/or sterilized material rooms, 10.5% in ICUs for adults and newborns and 61% in administrative sectors.

WS scores by question and domain are described on Table 1. The domain with the highest rate was "Personal Achievement", which approaches elements as income, labor benefits and work stability. In second place was "Interpersonal Relationship", dealing with interaction among employees, including communication and hierarchical relationships. The domain with the lowest rate was "Work Conditions", which concerns the physical structure of the work place, such as temperature, noise level and toilet availability. Regarding specific questions, the highest scores were: work stability, PPE access and the concern taken by the boss when speaking to employees, all of them with more than 70 points. On the other hand, items about effort acknowledgement on the institution, work

place temperature, hospital safety and noise level obtained the worse evaluation, all of them below 50 points.

Personal and institutional characteristics presenting a statically significant association with general fulfillment and by domain are described on Table 2. Among the identified factors, the level of education is associated to general fulfillment and to the "Interpersonal Relationship" and "Personal Achievement" domains: workers with high school education level presented highest satisfaction than those who had college degrees. Professionals with a position also obtained a general high satisfaction and on the "Interpersonal Relationship" and "Personal Achievement" domains. In its turn, the place of work was related with general satisfaction and on the "Interpersonal Relationship" and "Work Conditions" domains, in such way that professionals allocated on Intensive Care Units were more satisfied than those restricted to ambulatories and nursing wards. Characteristics as "age", "years working on the hospital", "gender", "work period" and "function performed" did not present a significant relation to WS.

After the personal and institutional determinant factors of WS were identified, the cross between educational levels and positions of the subjects began, according Table 3.

**Table 1 -** Work satisfaction (WS) scores by question and QST-Caism domains (n = 115), in accordance with domain composition and by decreasing order in each domain (scale 0-100 points), Womens' Hospital Professor Doctor José Aristodemo Pinotti-Caism, University of Campinas, Campinas, São Paulo, Brazil, 2013

Domain	QST-Caism Survey Questions*	Average	SD
Interpersonal Relationship	The concern taken by the boss when speaking to you	70.2	24.9
	The politeness with which your co-workers treat one another	61.2	22.1
	Your boss capacity to solve problems	57.0	26.2
	The quickness in which you are informed about events happening on Caism and on the University of Campinas	52.4	28.9
	The regard to your opinion to solve problems on your work place	51.5	25.7
	The way your boss motivates the team	50.9	28.5
	Domain Score	57.1	19.2
Personal Achievement	Work stability feeling	82.0	18.1
	Professional achievement feeling while working on Caism	67.2	25.7
	Use of your educational level on Caism	66.7	28.2
	Amount of work you perform daily on Caism	63.2	20.3
	Your working hours	62.8	29.1
	Received labor benefits (transportation and meal allowances, Cecom)	62.2	24.2
	Compatibility between your income and the activities you perform	57.9	23.1
	Acknowledgement of your efforts on Caism	48.5	27.2
	Domain Score	63.8	14.9
Work Conditions	Access to PPE to work	78.7	18.5
	Access to a close toilet on you work place	52.0	37.0
	Temperature on your work place	48.9	31.0
	Safety inside Caism	42.3	26.0
	Noise level on your work place	35.9	26.1
	Domain Score	51.6	18.8
WS General Score		58.5	14.9

Notes: \*All the questions begin with the following expression. "How do you evaluate...". SD: standard deviation.

**Table 2 -** Work satisfaction (WS) factors according to general score and QST-Caism domains, Womens' Hospital Professor Doctor José Aristodemo Pinotti-Caism, University of Campinas, Campinas, São Paulo, Brazil, 2013

Determinant factors	Median (mín;máx)	Simple Linear Regression Analysis		Multiple Linear Regression Analysis		R <sup>2</sup>
		Beta (EP)	P value	Beta (SE)	P value	
WS General Score						0.2531
Education Level						
Up to high school	60.5* (23.7;90.8)	reference		reference		
Undergraduate	56.6 (18.4;86.8)	-15.8 (6.6)	<b>0.017</b>	-18.9 (6.2)	<b>0.003</b>	
Graduation	63.2 (19.7;93.4)	-7.1 (10.2)	0.486	-16.1 (10.1)	0.111	0.0574
Works in a position?						
Yes	70.4 (35.5;86.8)	reference		reference		
No	59.2 (18.4;93.4)	-19.6 (10.1)	0.054	-25.7 (10.5)	<b>0.016</b>	0.0595
Work Place						
ICUs	72.4* (51.3;93.4)	reference		reference		
BO/CME	63.2 (42.1;77.6)	-16.9 (11.7)	0.151	-16.2 (11.7)	0.169	
Administration	72.4 (34.2;86.8)	-16.8 (14.8)	0.257	-22.9 (15.1)	0.131	
Ambulatories	55.6 (18.4;90.8)	-35.9 (10.5)	<b>&lt;0.001</b>	-36.2 (10.1)	<b>&lt;0.001</b>	
Admission units	56.6 (23.7;76.3)	-38.0 (10.1)	<b>&lt;0.001</b>	-36.3 (9.8)	<b>&lt;0.001</b>	0.1362
Interpersonal Relationship						0.2967
Education Level						
Up to high school	62.5* (12.5;95.8)	reference		reference		
Undergraduate	54.2 (8.3;95.8)	-15.3 (6.5)	<b>0.021</b>	-19.3 (6.1)	<b>0.002</b>	
Graduation	70.8 (29.2;100.0)	1.6 (10.1)	0.873	-9.2 (9.8)	0.349	0.0846
Works in a position?						
Yes	79.2* (20.8;95.8)	reference		reference		
No	58.3 (8.3;100.0)	-26.9 (9.9)	<b>0.008</b>	-31.8 (10.2)	<b>0.002</b>	0.0670
Work Place						
ICUs	68.8* (58.3;100.0)	reference		reference		
BO/CME	62.5 (45.8;87.5)	-15.8 (11.6)	0.176	-15.8 (11.3)	0.168	
Administration	79.2 (25.0;87.5)	-15.8 (14.6)	0.284	-25.6 (14.6)	0.083	
Ambulatories	54.2 (8.3;87.5)	-35.8 (10.4)	<b>&lt;0.001</b>	-35.9 (9.8)	<b>&lt;0.001</b>	
Admission units	54.2 (20.8;75.0)	-39.5 (10.0)	<b>&lt;0.001</b>	-38.1 (9.5)	<b>&lt;0.001</b>	0.1451
Realização Pessoal						0.1187
Education Level						
Up to high school	68.8* (18.8;96.9)	reference		reference		
Undergraduate	59.4 (21.9;93.8)	-14.8 (6.5)	<b>0.025</b>	-18.9 (6.6)	<b>0.005</b>	
Graduation	59.4 (18.8;100.0)	-16.2 (10.1)	0.110	-26.7 (10.5)	<b>0.012</b>	0.0561
Works in a position?						
Yes	70.3 (46.9;93.8)	reference		reference		
No	62.5 (18.8;100.0)	-17.5 (10.1)	0.086	-28.7 (10.4)	<b>0.007</b>	0.0626
Work Conditions						0.2072
Work Place						
ICUs	72.5* (55.0;90.0)	reference		reference		
BO/CME	55.0 (35.0;80.0)	-29.5 (11.3)	<b>0.011</b>	-26.5 (11.7)	<b>0.025</b>	
Administration	60.0 (15.0;75.0)	-37.7 (14.3)	<b>0.010</b>	-37.7 (14.3)	<b>0.010</b>	
Ambulatories	50.0 (10.0;95.0)	-42.7 (10.1)	<b>&lt;0.001</b>	-42.7 (10.2)	<b>&lt;0.001</b>	
Admission units	45.0 (0.0;75.0)	-48.5 (9.8)	<b>&lt;0.001</b>	-48.7 (9.8)	<b>&lt;0.001</b>	0.2072

Notes: Beta: angular coefficient value; SE: beta standard error; R2: determining coefficient. n = 115 interviewed subjects on simple analysis and n = 111 on multiple analysis, due to lack of independent variable information; \*Test of Mann-Whitney or Kruskal-Wallis with P < 0.05.

Significant differences among auxiliaries and technicians graduated and not graduated were observed, the second group holding the highest satisfaction for general score and for the "Personal Achievement" domain. This means that

the participants that had already concluded undergraduate courses, and despite that, kept working as technicians or auxiliaries, were less satisfied than those workers on the same position that had only high school education level.



**Table 3 -** Overall job satisfaction and domain according to the function and education of participants, Womens' Hospital Professor Doctor José Aristodemo Pinotti-Caism, University of Campinas, Campinas, São Paulo, Brazil, 2013

Scores	Aux/Tech. High School	Aux/Tech. Undergrad/Grad	Nurses Undergrad	Nurses Graduation	P value
	n = 54	n = 19	n = 30	n = 11	
General					
Average (standard deviation)	62.1 (12.3)	49.3 (14.5)	57.8 (15.0)	59.2 (21.7)	<b>0.027</b>
Median	60.5*	51.3*	59.9	63.2	
Minimum; Maximum	(23.7; 90.8)	(18.4; 71.1)	(31.6; 86.8)	(27.6; 93.4)	
Interpersonal Relationship					
Average (standard deviation)	60.6 (16.6)	47.6 (18.5)	54.2 (19.9)	64.0 (25.7)	0.057
Median	62.5	50.0	58.3	75.0	
Minimum; Maximum	(12.5; 95.8)	(8.3; 75.0)	(16.7; 95.8)	(33.3; 100.0)	
Personal Achievement					
Average (standard deviation)	67.1 (13.1)	54.5 (14.6)	65.1 (13.5)	61.4 (21.0)	<b>0.010</b>
Median	68.8*	56.3*	65.6	59.4	
Minimum; Maximum	(18.8; 96.9)	(18.8; 78.1)	(13.5; 93.8)	(34.4; 100.0)	
Work Conditions					
Average (standard deviation)	55.7 (16.6)	43.2 (18.3)	50.3 (19.9)	50.0 (23.8)	0.154
Median	55.0	45.0	52.5	55.0	
Minimum; Maximum	(25.0; 95.0)	(10.0; 75.0)	(15.0; 90.0)	(0.0; 75.0)	

Notes: aux/tech: nurse auxiliaries and technicians; P value it refers to Kruskal-Wallis test; \* groups with significant difference ( $P < 0.05$ ) by the Dunn.

## DISCUSSION

This study found that WS was influenced by educational level, position and work place. In this model, graduated professionals without a position and who worked on ambulatories or nursing wards were the most unsatisfied, while those with high school education level and allocated to ICUs or holding a position were the most satisfied. Now it must be analyzed in such way each one of those characteristics may have influenced WS.

The association between WS and educational level of nursing professionals has been approached in several studies, mainly international ones, sometimes pointing to a positive relation between both dimensions<sup>(12-14)</sup>, sometimes a negative relation<sup>(15)</sup>, and eventually a neutral<sup>(16)</sup>. In this scenario of inconsistencies, this study verified higher satisfaction for graduated workers to those with high school education level, and it may be connected to an incompatibility between function and educational level. Indeed, the negative association with the education level was only significant when compared with technicians and nursing auxiliaries, with or without a college degree; workers that, despite of having a college degree, performed high school functions, were more unsatisfied than those with high school degree and matching functions. This result agrees with another study's finding, according to which the lack of growth opportunity in a hospital may reduce nurses WS<sup>(17)</sup>. On the other hand, institutions that facilitate this growth come to increase WS<sup>(18)</sup>.

Being a public institution, and so having the remarkable stability that allows workers to keep an employment relationship for many years, Caism has a great amount of workers that, throughout their careers, acquired professional qualifications

different from the performed functions of the original hiring. In this context, usually it is not possible for the institution to relocate all workers regarding their new qualifications.

This situation causes dissatisfaction for several workers, according to registered comments by some of them. A graduated nursing technician suggested the hospital:

*Should give an opportunity for abilities, people with other graduations different from their performed function on work, to be considered (TEC1)*

In the same profile, another worker stated that:

*We have a team of nursing technicians with a nursing degree [...] and this supports even more the demotivation theory. (TEC2)*

It is interesting that despite dissatisfaction, such workers have chosen to keep their employment relationship with the hospital. Also, work stability was the better evaluated item, indicating that this is an aspect much appreciated by the study's subjects. In face of it, it is possible to assume the work conditions and income offered by Caism for technicians and nursing auxiliaries are more advantageous than nursing positions in other institutions. On the other hand, it is also possible that those workers could not reintegrate market with their new qualifications, remaining on Caism despite the performed function and educational level incompatibility. The second hypothesis is aligned to the outstanding growth of nursing undergraduate courses in the last years, predominately concentrated on private education<sup>(19-20)</sup>.

Such growth has been criticized for not being articulated with the market's job offers, among other reasons, promoting

an unbalance between number of jobs available and the number of graduated professionals<sup>(20)</sup>. It is known that most students interested in these courses are basically auxiliaries and nursing technicians. Searching "personal growth", they afford high tuition fees and lack of time to rest, study properly, enjoy quality time with family and leisure, a condition that turns out to be extremely stressful over time<sup>(21)</sup>. In this scenario, it is reasonable to suppose that those workers have high hopes to have their functions readjusted to their new qualifications, taking the risk to present a higher level of work dissatisfaction and fall of motivation, accordingly identified in this study.

Education level was also highlighted when associated to positions and work place on the predictive model for QST-Caism general score. Regarding position, it is possible to assume that supervisors or directors have better incomes and more autonomy, in addition to more favorable physical work conditions and a greater feeling of professional satisfaction. It is not surprising that they hold higher WS levels, according to what has already being identified on an international study<sup>(22)</sup>. In contrast, undergraduate or graduated professionals without holding a position may feel upset with allegedly professional stagnations. More than that, it seems to be an urge among some of them for a bigger participation on decision-making processes.

A graduated professional without a position suggested that:

*The team should choose the supervisors. (TEC3)*

Other two workers also graduated and not holding a position, proposed modifications on the current institutional workers evaluation models. One of them suggested:

*An evaluation of performance should be individual and having the professional present. (NUR1)*

Where as another one complained about not being able to evaluate their superiors:

*When the evaluation is done, why only employees are evaluated? Why can't we evaluate our supervisors and directors? (TEC4)*

On the same line, another graduated and without holding a position told that:

*Suggestions of participant professionals should be respected and listened. (TEC5)*

Regarding influence of work place on satisfaction scores, it has been observed that professionals allocated to nursing wards and ambulatories presented the lowest scores on "Interpersonal Relationship" domain. It is important to highlight that both places concentrate 36% (173/484) of all nursing professionals of the hospital. Besides, those departments have practices and spared rooms in different floors of the hospital. This combination of features may difficult communication and interaction among coworkers and team supervisors, which a nursing technician allocated to the nursing wards said that is missing:

*A supervision and a more involved leadership. (TEC6)*

Place of work also presented a significant association with the "Work Conditions" domain. Once more, ambulatories and nursing wards workers presented the lowest fulfillment levels, while those allocated to ICUs were the most satisfied. This result is not a surprise, given that those places have important differences from one another. Hospital ICUs have a restricted access by badges, decreasing movement of people, implying on lower noise levels and higher safety conditions. Besides, those facilities have air conditioning and their own toilets.

Such features diverge from hospital nursing wards and ambulatories, whose workers had several critics and improvement suggestions for work conditions. Among them, a nursing technician said:

*I would like to have air conditioning installed at the nursing ward. (TEC7)*

Still on ambulatories, another technician reported that:

*It is horrible to work in a room without windows and not functioning air conditioning. (TEC8)*

On noise level, a technician estimated that:

*Noise at the work place surpasses the allowed levels. (TEC9)*

The same participant also criticized toilet locations, reporting that:

*We need to take 3 floors to have access to toilets, which many times is out of order or without proper use conditions. (TEC9)*

On "Personal Achievement" domain, the association with position and education level for workers fulfillment: the subjects with no position and undergraduate or graduate degrees are more unsatisfied regarding aspects as applying their education skills on work, income and acknowledgement of efforts. As previously discussed, it is possible to assume those people had non-correspondent expectations for their careers, explaining why they had lower satisfaction levels than those with lower educational level or holding a position.

This hypothesis is coherent with WS definition itself by American psychologist Edwin A. Locke, who conceive as an emotional state resulting from the evaluation of work itself or work experiences<sup>(23)</sup>. In such model, WS is established relating what the person wants to what he/she judged to be really living<sup>(24)</sup>. Such perception is tied to belief and values baggage of each individual, from which work may produce an emotional state of fulfillment or dissatisfaction<sup>(25)</sup>.

Among personal and institutional aspects that have not presented a significant association with WS, gender was highlighted. National literature about the theme still lacks consistency, sometimes pointing out higher fulfillment for female nursing professionals<sup>(7)</sup>, and sometimes pointing out male nursing professionals<sup>(26)</sup>. Samples of those studies included only

nurses, while this study also evaluated technicians and nursing auxiliaries, characteristics that may have influenced the obtained results.

The significant absence of different satisfaction between working hours was an unexpected result, highlighting more than 65% of the sample working at night or in shifts. Concerning that, a nurse stated the following report:

*We are aware we chose a profession that works during weekends and holidays [...] time with family is healthy and it is reflected on the work [that need to require] hiring for more employees, shifts to cover absence, paying overtime.* (NUR2)

The correlation between WS and participants age was not identified. The national literature about the theme is extremely rare, hindering a more grounded discussion about a possible correlation of those items. Thus far, international literature has suggested work place and interpersonal relationships have a more determining role over WS than personal features, as age<sup>(27)</sup>.

This study has not found significant differences when comparing nurses to technicians or nursing auxiliaries, the review showed this type of comparison is unusual on Brazilian research, being only 1 out of 17 analyzed articles<sup>(6)</sup>. According this work, technicians and auxiliaries present a higher WS than nurses<sup>(28)</sup>. Other studies compared fulfilment among nurses and nursing auxiliaries, sometimes identifying a higher WS on the first group<sup>(29)</sup>, and sometimes on the second group<sup>(8)</sup>.

Considering study limitations, it is possible to highlight the secondary data analysis. In this type of research, once the data are analyzed to meet different purposes than those on the original study, the adjustment between new and effectively

available questions and data may face some obstacles<sup>(30)</sup>. Besides, there may have been limitations regarding mixed employee method, for the priority of a type of data in detriment of another (i.e. prioritizing quantity in detriment of quality, or vice-versa), may result in not equal evidences during the findings' interpretation<sup>(11)</sup>.

## CONCLUSION

The obtained results allow to conclude that WS from a nursing team is associated with level of education, position and place of work. Professionals that are better qualified without a position and that work on ambulatories or nursing wards tend to present the lowest levels of fulfillment. On the other hand, professionals with high school level working on Intensive Care Units, or having a position, present the highest levels of fulfillment. On this matter, the most important aspect revealed probably is the relation between professional qualification and function performed.

It has been observed that the highest dissatisfaction of graduated workers comparing to those with a high school level, a phenomena that is frequently mentioned on literature, may be connected with an incompatibility between function performed and qualification level. Although graduated, those workers were performing high school level functions and were not as much fulfilled as those with a high school level of education and function. This finding adds to the need to evaluate the remarkable numbers of expansion on undergraduate courses of nursing care occurring throughout the country on the last years, frequently criticized for not be linked to the vacancies on job market.

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